



“Cost of a mainstream health benefits package for Indian people”



Level of Need Funded Study



LNF Workgroup Report II

Funding needs of local Indian health programs and
a strategy for allocating resources

December 1999

LNF Workgroup Report II



Actuarial Cost Model for Local Operating Units and a Proposed Resource Allocation Strategy



Introduction

This is the second report by the Level of Need Funded (LNF) Workgroup. Part 1, which was submitted in May 1999, summarizes the costs of a mainstream package of health care services for the Indian population in total. This report describes adaptations to the actuarial approach to apply it to the 12 IHS Areas (regions) and for smaller geographic units within those regions. Before summarizing Part 2 results, it is important to reiterate those essential principles on which federal health care to Indians is based.

Federally recognized American Indian tribes and Alaska Native villages have a government-to-government relationship with the United States. The provision of health services to American Indians and Alaska Natives grew out of this government-to-government relationship. The U.S. Government exchanged federal services for the land, water, and minerals of the indigenous people who lived here centuries before the United States was formed. The exchange was made through treaties that were negotiated and signed with tribal nations. These treaties remain in effect.

On the basis of these moral and legal responsibilities to the first Americans, the U.S. government appropriates funds for the Indian health care system; a partnership of federal, tribal, and urban Indian operated health care programs. The federal funding that is provided for the Indian health care system is not an entitlement. Unlike entitlement programs, a defined package of health care services is not assured to eligible Indians who need services. The level of services provided by the Indian health care system varies from place-to-place and from time-to-time depending on available funding.

The American Indian and Alaska Native population has long experienced health problems disproportionately compared with other Americans. Their life expectancy is still 5 years less than other Americans. They die at higher rates than other Americans. The lingering Indian health disparities are troublesome. In trying to account for the

inequities, health care experts and congressional and tribal leaders are looking at many factors that impact upon Indian health including, but not limited to, inadequate funding of the Indian health system.



Part 1 Results – Benefit Package Costs for all Indians

What would it cost to provide an equitable level of health care services to all eligible Indian people? The Workgroup answered this question in Part 1 of the study using actuarial analysis. Actuarial analysis focuses on factors likely to affect cost of providing personal health care benefits, such as the health status of the population (unhealthy populations need more health care), or the prices charged by physicians and hospitals (high cost areas need greater funding).

The following national results are found in our earlier report and are based on average cost of private insurance (including all premiums, co-payments, and deductibles), adjusted for the age, health status, and rural location of the Indian population, net of estimated payments by other insurers (Medicare, Medicaid, and private).

- Mainstream health care services for all 2.4 million American Indians and Alaska Natives would cost \$2,980 per person for a total cost of \$7.4 billion annually.
- The Indian health system serves 1.34 million Indians living in IHS service delivery areas. A mainstream package for this “user” population would cost \$4 billion. Approximately 25 percent of the cost would be expected from other sources such as Medicare, Medicaid, and private insurance.
- The IHS appropriation provides only 59% of net federal funding needed for Indian users. An additional \$1.2 billion is needed to raise the LNF to 100 percent for Indian users.
- The cost to expand coverage to 1 million Indians not now served by the Indian health system is \$3 billion. Of this amount, the cost for Indians residing in Urban Indian service areas is \$1 billion. Only a small fraction of urban Indians receive health services from the Indian health system.



Purpose of Part 2 of the LNF Study

Part 1 of the LNF study documented the funding gap for Indians compared to mainstream health plans of other Americans. Part 2 of the study focuses on variations *within* the Indian health system.

The services provided by the Indian health care system vary from place-to-place and from time-to-time depending on available funding. Also, Indian health status, capabilities of the Indian health system, and price of health care from external sources varies substantially within Indian country. In Part 2, researchers adapted the actuarial approach to consider differences found within the Indian health system.

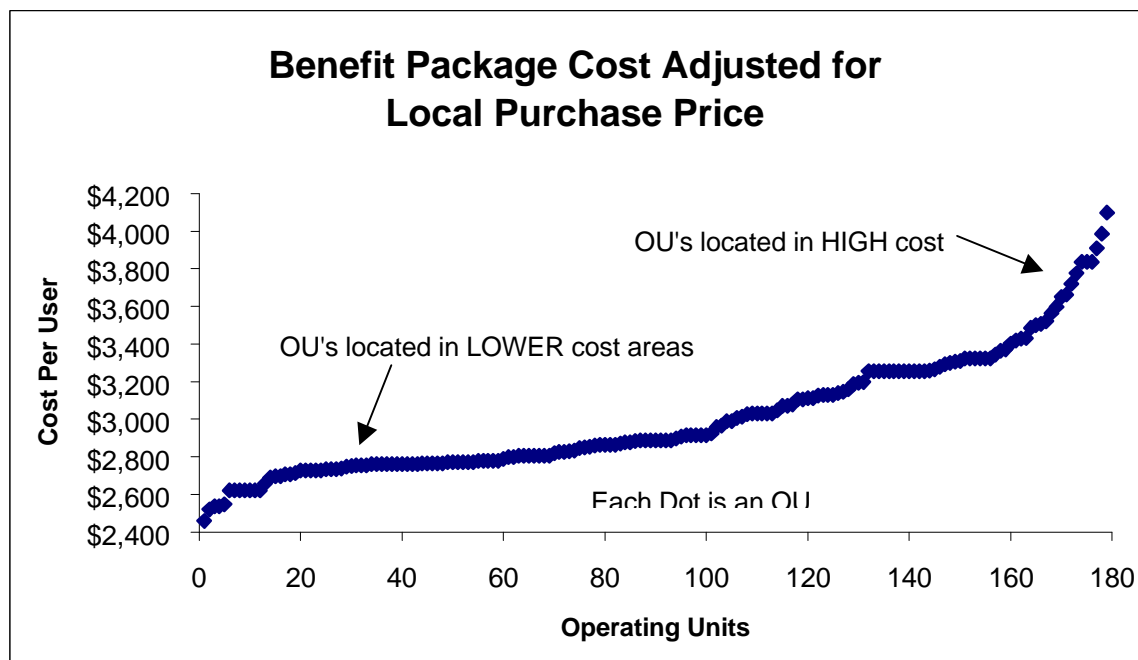


Adjusting Benefits Package Cost for Local Conditions

Variations in External Health Care Prices

Local operating units of the Indian health system purchase health care services from external sources when internal capacity is insufficient or uneconomical. There are substantial geographic variations in health care prices. Prevailing local prices obviously affect costs. Operating units located in higher cost areas will require more funds to provide the standard package of benefits.

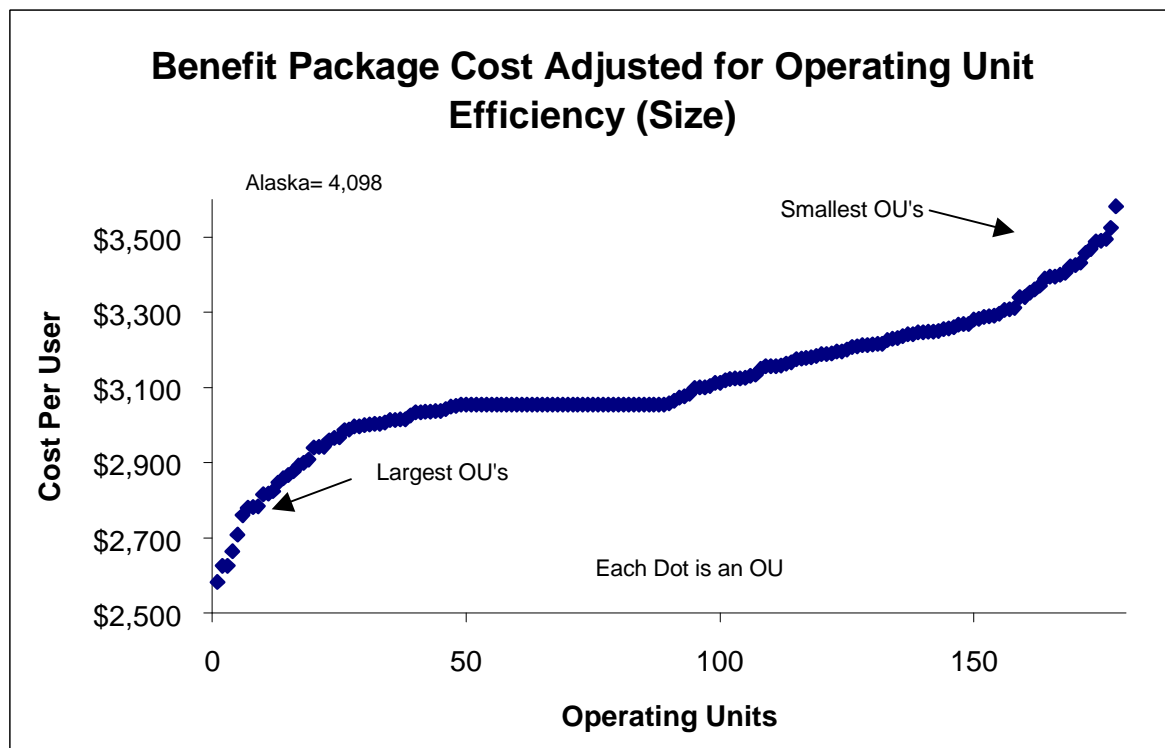
An index of external health care prices was developed using hospital wage data blended with data on physicians' practice costs. This index of local health care prices is used to predict the costs that operating units will actually experience. The index is used to adjust the \$2,980 national average cost of the benefits package based on prevailing local costs. The resulting variations in expected costs per user are shown in the chart below.



Variations in Internal Efficiency

Various characteristics of the local health care delivery system, especially size, will affect the costs of providing health care services. Smaller operating units are unable to take advantage of "economies of scale" which often increases the cost of providing services.

The IHS developed an internal efficiency index to estimate cost differences related to size. The index uses user count and productivity factors derived from IHS facility staffing standards. The researchers reviewed the efficiency factor and found it within the typical range reported in the literature. The index is used to adjust the \$2,980 average cost of the benefits package based on the size of the operating unit. The resulting variations in expected costs per user are shown in the chart below.



Variations in Health Status

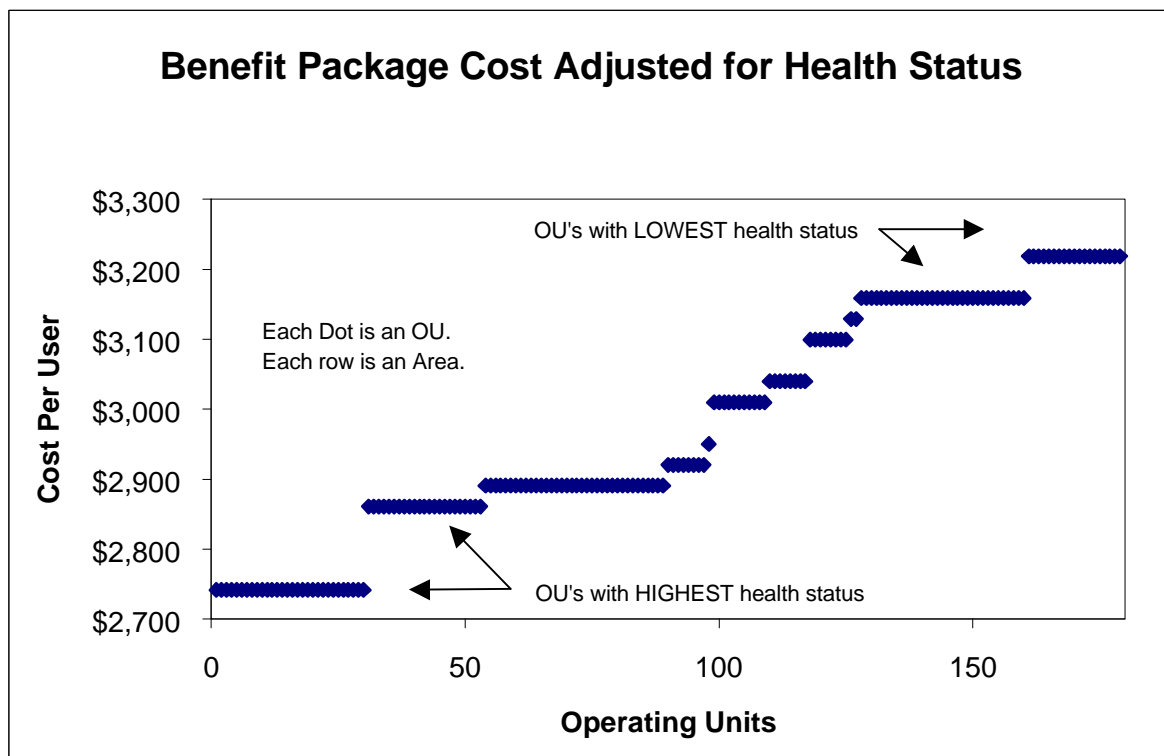
The volume and intensity of services needed to assure the standard package of benefits depends on the health of the people covered. A population in poorer-than-average health will require more care. For example, an operating unit serving a population with higher mortality rates and lower life expectancy probably experiences higher costs and needs more funding.

In part I of the study, the researchers actuarially adjusted costs based on population incidence rates for key health problems, e.g., diabetes, heart disease, etc. and known costs for those problems. The researcher could not use the same actuarial techniques for

operating units because data for small areas is incomplete and less reliable. As a substitute for direct actuarial adjustments, the researchers developed a proxy index based on 3 measures of health status within Indian country.

- Birth Rates – a proxy for a young, fast growing Indian population with higher than average maternal/child costs.
- Death Rates – a proxy for the higher burden of disease and injury among Indians.
- Poverty Rates – a proxy widely acknowledged as correlated with health status and access to health care services.

The Workgroup believes the proxy index is credible, but not as technically robust as the direct actuarial technique. Furthermore, the index is available only for Area populations and not operating unit populations. For these reasons, the Workgroup recommends that the cost adjustments for health status be limited to ½ of the index range, e.g., a 10 percent value would be applied in the cost model as 5 percent. The index is used to adjust the \$2,980 average cost of the benefits package. The resulting variations in expected costs per user are shown in the chart below.



Funding for the Benefits Package

The LNF model counts the following funds towards meeting the costs of a benefits package:

- Local IHS funds of the operating unit less funds used for wrap-around services that are not part of the benefits package,
- Area-wide IHS funds less funds used for wrap-around (these include area office, area-wide programs benefiting Area operating units, and funds in certain operating units that provide substantial services, such as inpatient hospitalizations, to users residing outside the operating unit),
- IHS-wide IHS funds less funds used for wrap-around (these include headquarters and national programs benefiting all operating units), and
- Estimates for Other Coverage such as Medicare, Medicaid, and private insurance.

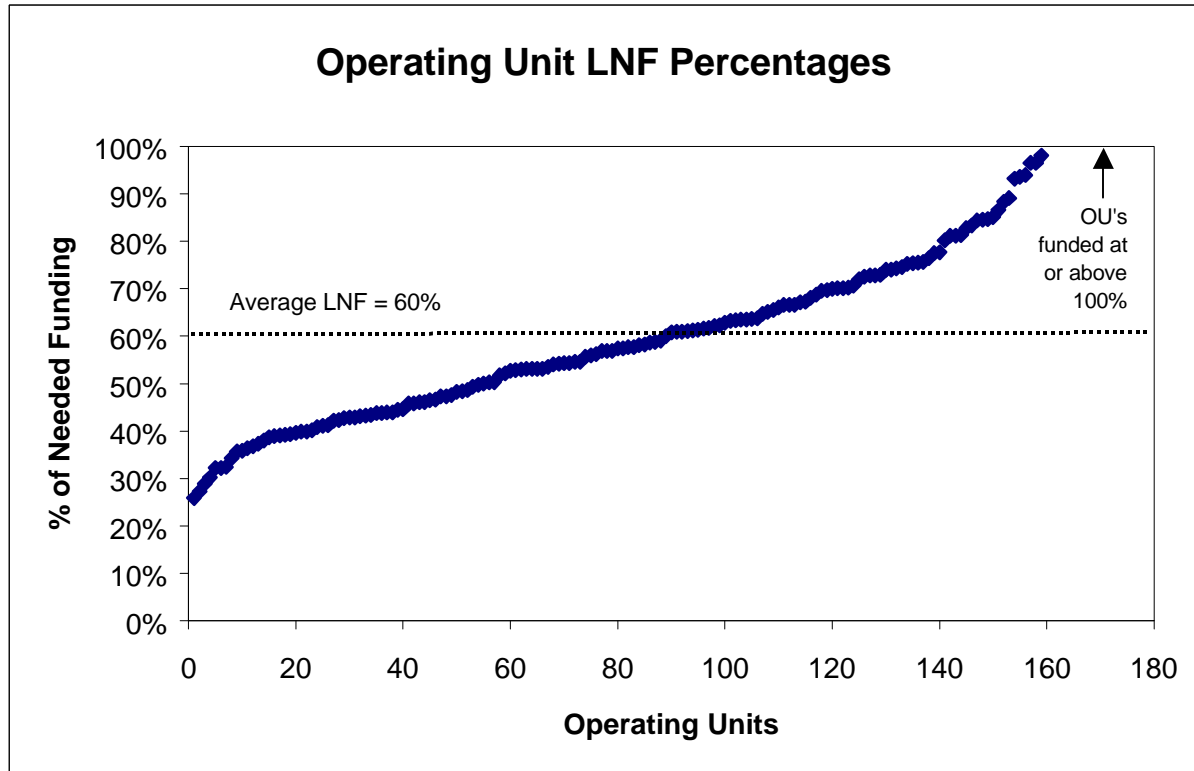
The Workgroup reviewed Medicare, Medicaid, and private insurance for Indians and found anomalies in the data. Medicaid data for Indians, in particular, appear inconsistent with reports from direct survey – the Survey of American Indians and Alaska Natives (SAIAN). The Workgroup was especially concerned about the accuracy of race/ethnicity coding in Medicaid data. Also, Medicare and Medicaid data do not distinguish payments for I/T/U users versus payments for other Indians. The Workgroup concluded that other coverage data are not sufficiently reliable for use in the LNF model at this time. The Workgroup strongly believes that more study, especially the direct matching of the Health Care Financing Agency (HCFA) recipient records for Medicare/Medicaid with IHS user records, is needed before using these data in the LNF calculation. In the interim, \$730/user is used in the LNF calculations as funding for other sources. This estimate is extrapolated from the SAIAN findings and adjusted for annual medical cost inflation. Note that \$730 includes payments to all providers on behalf of Indians, not just collections by operating units



LNF Percentages for Operating Units

Funds were converted to \$ per user to compare with the benefits package costs. To focus on local operating unit level, the calculation proceeds as follows. Per user \$ for other coverage, IHS-wide \$, and Area-wide \$ were subtracted from the benefit package cost to determine the net cost of the benefits package in each operating unit. Operating unit funding per user is compared to the net cost to determine the level of need funded percentage and unmet need.

The resulting variations in LNF percentages for operating units are shown in the chart below.



Unmet Need Results Summary

Tables of detailed results for all operating units can be found in the companion report entitled “Provisional Results for Local Operating Units”. The results are provisional pending formal consultation and application of revised user counts that are expected by January 2000. In summary:

- 109 operating units are funded below 60 percent (average).
- Total unmet need is \$1.2 billion (\$ to raise all operating units to 100 percent).
- \$288 million is needed to raise below average operating units to 60 percent. The FY 2000 \$10 million equity fund is only 3.47 percent of this amount.
- 18 operating units are above 100 percent. All are very small – the average size is 560 users each and total active users for all 18 units is only 10,000.



A Recommended Resource Allocation Strategy

The Workgroup has reviewed the results produced by the LNF model. We believe the LNF model is a reasonable guide for distribution of resources among IHS Areas and local operating units. Therefore, the Workgroup recommends:

- The IHS should consult with tribes and Indian health leaders about resource allocation using the actuarial LNF model. The Workgroup's summary report and resource allocation strategy recommendations should be distributed immediately for comment.
- The Workgroup does **NOT** propose reallocating existing IHS funding among IHS Areas or operating units. Reallocation would not close the funding gap with other Americans and would disrupt already under-funded health programs.
- The IHS should use the LNF model for allocating "equity" funding. In any fiscal year in which new equity funding is not appropriated, the IHS should consult with tribes and Indian health leaders on whether other budget increases (i.e., funding to expand or maintain services) should be allocated using the LNF model.
- The LNF allocation formula should be applied using operating unit level data. The Workgroup acknowledges that actuarial techniques are statistically less reliable for small operating units, but we believe the tradeoff is worthwhile because funding within IHS Areas is not equal.
- The LNF allocation formula should target funding to operating units below the average -- currently 60 percent. If the funding is insufficient to raise operating units to the average, allocations should be proportional to the deficiency. For example, if equity funds were 20 percent of the amount needed to raise operating units up to the average, each would receive 20 percent of its deficiency. This results in more funding for units with the lowest LNF percentages.
- The IHS should recalculate the average LNF ratio annually. With substantial funding infusions, the average LNF percentage will rise to include ever expanding groups of operating units.



Potential Allocations to Operating Units

Tables of LNF calculations and results for every operating unit are in the appendix entitled "PROVISIONAL RESULTS FOR LOCAL OPERATING UNITS. To estimate an operating unit's allocation from the \$10 million equity fund, find the amount needed to raise the operating unit to 60 percent. Multiply this amount by 3.47 percent (\$10,000,000 equity fund / \$288,000,000 unmet need). If the equity fund were increased to \$100,000,000, each unit would receive 34.7 percent of the identified amount.